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FIG. 1

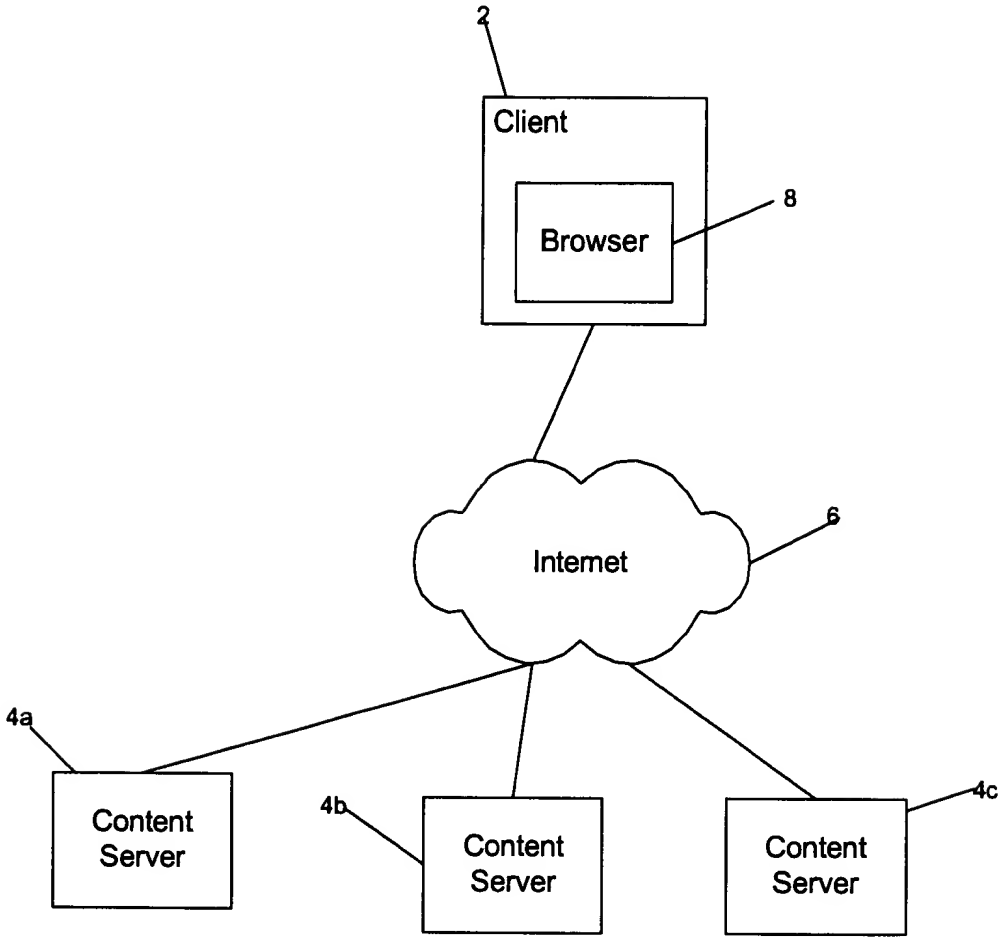


FIG. 2

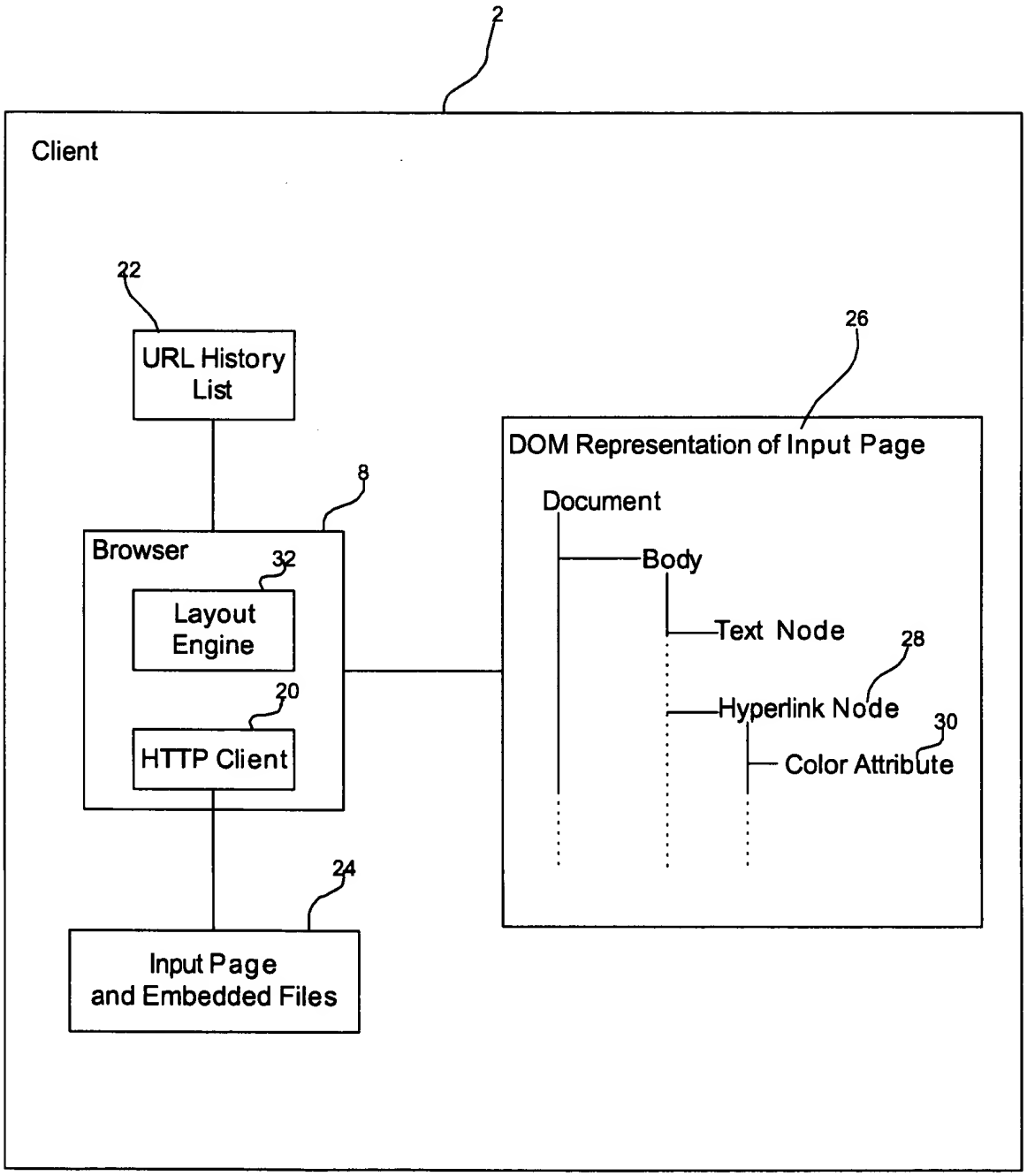
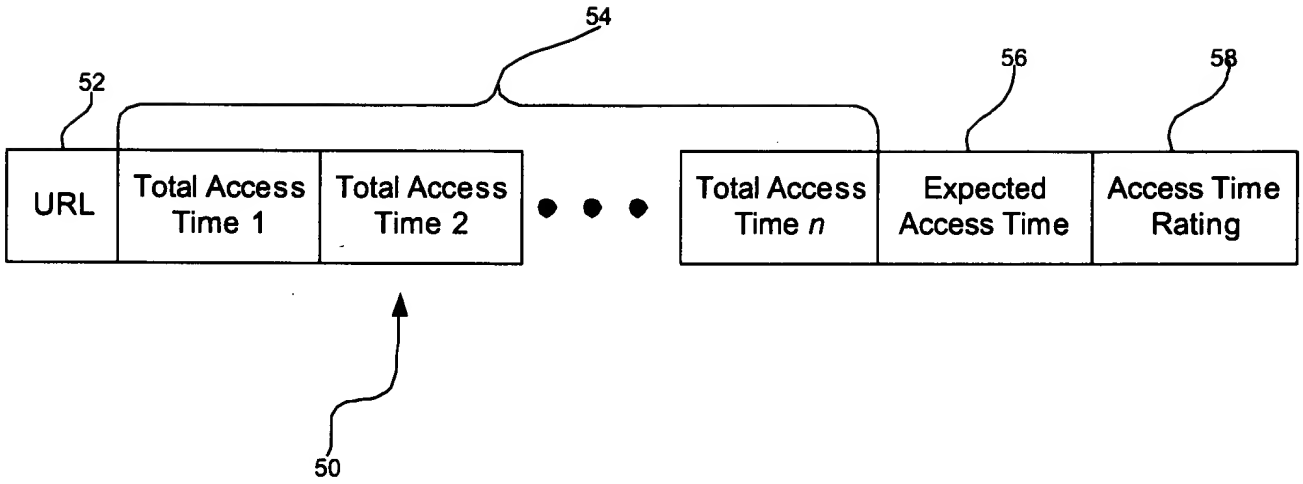

2
Client
22
URL History List
26
DOM Representation of Input Page
Document
Body
Text Node
28
Hyperlink Node
30
Color Attribute
8
Browser
32
Layout Engine
20
HTTP Client
24
Input Page and Embedded Files

FIG. 3


54
52
56
58
URL
Total Access Time 1
Total Access Time 2
Total Access Time n
Expected Access Time
Access Time Rating
50

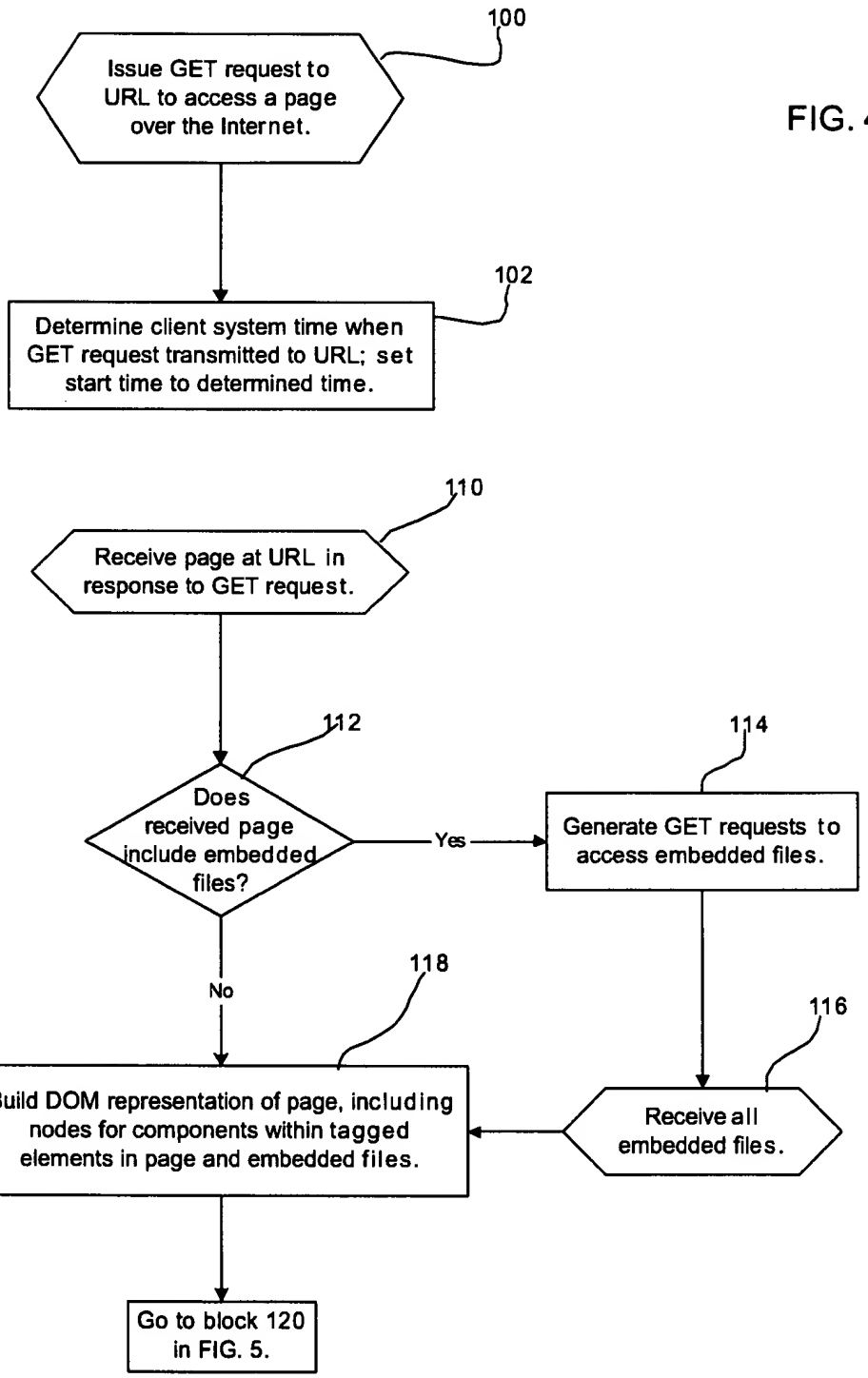

100
Issue GET request to URL to access a page over the Internet.
102
Determine client system time when GET request transmitted to URL; set start time to determined time.
110
Receive page at URL in response to GET request.
112
Does received page include embedded files?
Yes
114
Generate GET requests to access embedded files.
No
118
116
Build DOM representation of page, including nodes for components within tagged elements in page and embedded files.
Receive all embedded files.
Go to block 120 in FIG. 5.

FIG. 4

FIG. 5

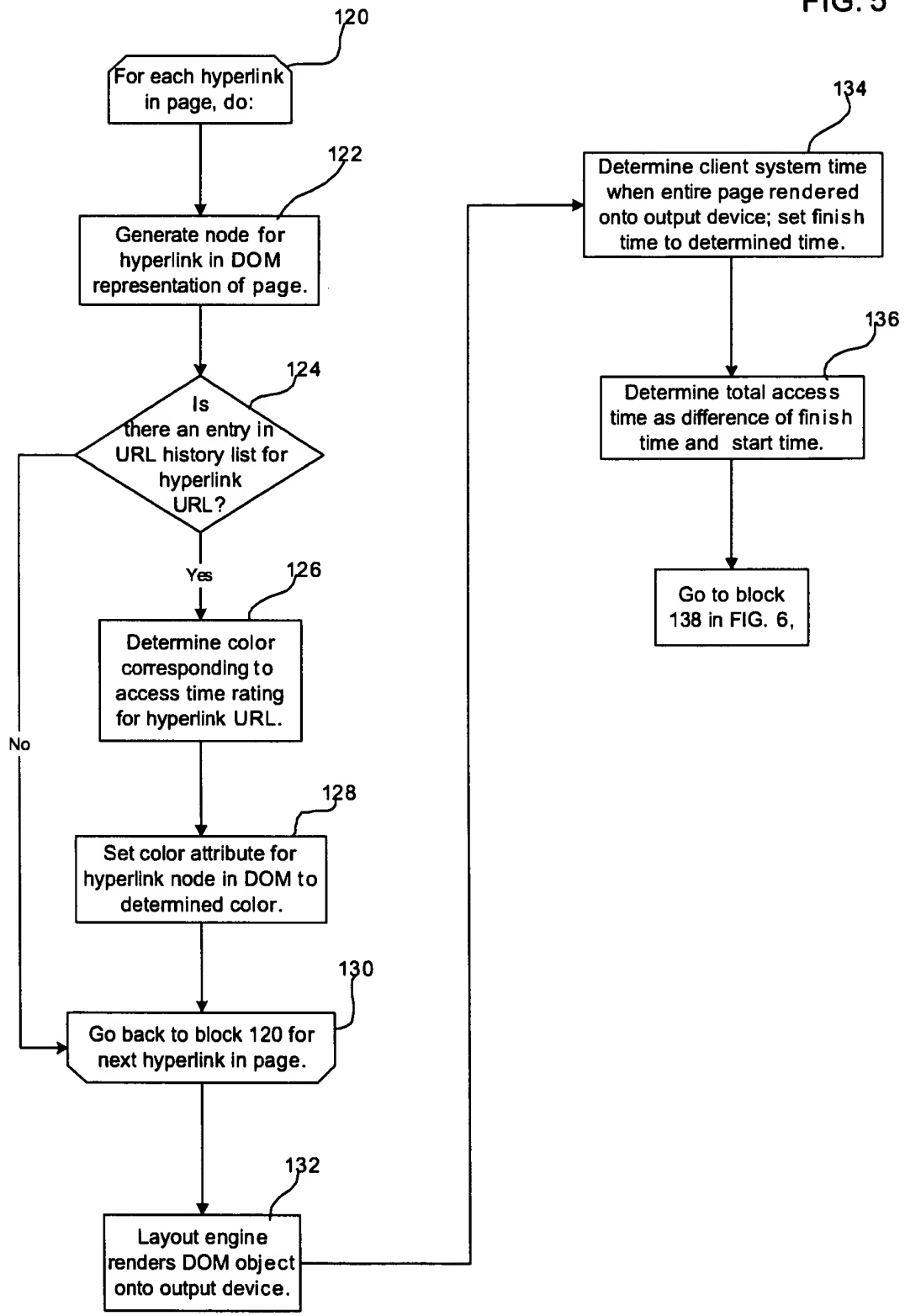
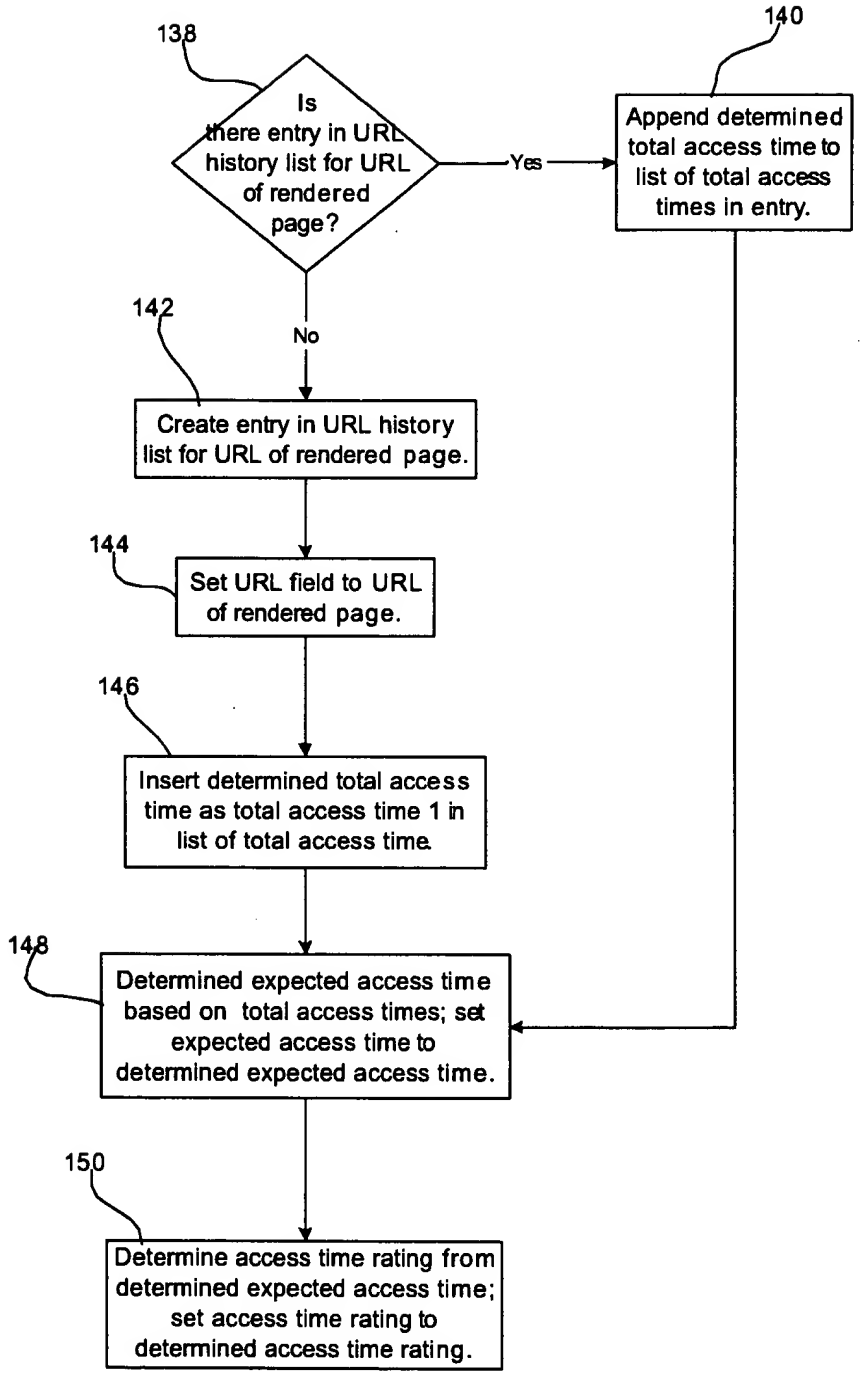

120
For each hyperlink in page, do:
122
Generate node for hyperlink in DOM representation of page.
124
Is there an entry in URL history list for hyperlink URL?
Yes
No
126
Determine color corresponding to access time rating for hyperlink URL.
128
Set color attribute for hyperlink node in DOM to determined color.
130
Go back to block 120 for next hyperlink in page.
132
Layout engine renders DOM object onto output device.
134
Determine client system time when entire page rendered onto output device; set finish time to determined time.
136
Determine total access time as difference of finish time and start time.
Go to block 138 in FIG. 6,

FIG. 6


138
Is there entry in URL history list for URL of rendered page?
Yes
140
Append determined total access time to list of total access times in entry.
No
142
Create entry in URL history list for URL of rendered page.
144
Set URL field to URL of rendered page.
146
Insert determined total access time as total access time 1 in list of total access time.
148
Determined expected access time based on total access times; set expected access time to determined expected access time.
150
Determine access time rating from determined expected access time; set access time rating to determined access time rating.